

Abstract

The present invention relates to a twisting apparatus for an ultrafine rectangular bar, comprising: a chuck for holding a proximal end of the ultrafine rectangular bar; chuck driving means for holding or releasing the proximal end of the ultrafine rectangular bar by driving the chuck; at least two vise clamps structured to contact with and isolated from the ultrafine rectangular bar held by the chuck, each of the vise clamps having a pressing surface capable of contacting to a side surface of the ultrafine rectangular bar; vise clamp driving means for driving the vise clamps to move the vise clamps to contact with and isolated from the ultrafine rectangular bar; moving means for correlative moving the chuck and the vise clamps along the axial center of the ultrafine rectangular bar held by the chuck; and rotating means for correlative rotating the chuck and the vise clamps around the axial center of the ultrafine rectangular bar held by the chuck. The chuck driving means and the vise clamp driving means are so controlled that, after the proximal end of the ultrafine rectangular bar is held by the chuck where the vise clamps are placed closely to the ultrafine rectangular bar, the chuck disengages ultrafine rectangular bar when the vise clamps contact to the ultrafine rectangular bar and then engages again the ultrafine rectangular bar, in a case where the vise clamps are approached closely to the ultrafine rectangular bar held by the chuck to twist the ultrafine rectangular bar upon isolating, as rotated correlative, the chuck and the vise clamps from each other.